What is Claimed is:

[c1]   In a network of computers having a dedicated storage network for retrieving data from storage, a method of processing packets received on the storage network, the method comprising the step of:

storing a sequential indicator for indicating a sequence of a current frame within a set of frames.

[c2]   The method of claim 1, further comprising:

comparing a header field of the current frame with a header field of a previous frame; and

generating the sequential indicator on the basis of a result of the comparing step.

[c3]   The method of claim 2, wherein the header fields are indicative of respective originator exchange ID's of the current frame and the previous frame.

[c4]   The method of claim 2, wherein the header fields are indicative of respective responder exchange ID's of the current frame and the previous frame.

[c5]   The method of claim 2 wherein the header fields are indicative of respective source nodes of the current frame and the previous frame.

[c6]   The method of claim 2, wherein the header fields are indicative of respective sequence ID's of the current frame and the previous frame.

[c7]   The method of claim 2, wherein the header fields are indicative of respective sequence counts of the current frame and the previous frame.

[c8]   The method of claim 2, wherein the comparing step includes determining whether the header field of the current frame is identical to the header field of the previous frame.

[c9]   The method of claim 2, wherein the comparing step includes determining whether a sequence count header field of the current frame differs by 1 from a corresponding header field of the previous frame.

[c10]   The method of claim 1, wherein the previous frame was received immediately

before the current frame.

[c11]   The method of claim 1, further comprising supplying the stored sequential indicator to a frame processing unit.

[c12]   A method of processing incoming data frames in a data communication system, the method comprising the steps of:

receiving a plurality of data frames one after the other;

comparing a header field of a current frame with a header field of a previous frame;

generating at least one bit based on a result of the comparing step; and

providing the at least one bit to a frame processing unit.

[c13]   The method of claim 12, wherein the previous frame was received immediately before the current frame.

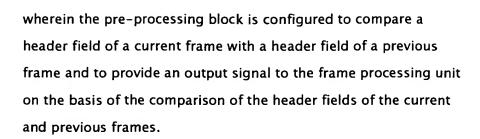[c14]   The method of claim 12, wherein the generating step includes:

generating a first bit to indicate that the current frame is of the same exchange as the previous frame;

generating a second bit to indicate that the current frame is of the same sequence as the previous frame; and

generating a third bit to indicate that the current frame immediately follows the previous frame in the sequence.

[c15]   The method of claim 12, wherein the providing step includes storing the at least one bit in a frame buffer, and allowing the frame processing unit to access the stored at least one bit.

[c16]   The method of claim 12, wherein the providing step includes supplying the at least one bit to the frame processing unit as a sideband signal.

[c17]   The method of claim 12, wherein the frame processing unit is a processor that operates under control of a stored program.

[c18]   Apparatus adapted to process incoming data frames, comprising:

a pre-processing block adapted to receive data frames; and

a frame processing unit coupled to the pre-processing block;

wherein the pre-processing block is configured to compare a header field of a current frame with a header field of a previous frame and to provide an output signal to the frame processing unit on the basis of the comparison of the header fields of the current and previous frames.

[c19]   The apparatus of claim 18, wherein the frame processing unit includes a processor that operates under control of a stored program.

[c20]   The apparatus of claim 19, wherein the frame processing unit further includes a frame buffer that stores the incoming frames and the output signal, the frame buffer being accessible by the processor.

[c21]   The apparatus of claim 18, wherein the output signal includes respective bits for:

indicating that the current frame is of the same exchange as the previous frame;

indicating that the current frame is of the same sequence as the previous frame; and

indicating that the current frame immediately follows the previous frame in the sequence.

[c22]   The apparatus of claim 18, wherein:

the frame processing unit includes a master processor and a plurality of second processors managed by the master processor; and

on the basis of the output signal provided by the pre-processing block, the master processor selects one of the second processors to process the current frame.

[c23]

A method of pre-processing an incoming data frame, comprising the steps of:

comparing an originator exchange ID of the incoming data frame with an originator exchange ID of a previous data frame;

comparing a responder exchange ID of the incoming data frame with a responder exchange ID of the previous data frame;

setting a first bit if the originator exchange ID of the incoming data frame

is the same as the originator exchange ID of the previous data frame and the responder exchange ID of the incoming data frame is the same as the responder exchange ID of the previous data frame;

comparing a source ID of the incoming data frame with the source ID of the previous data frame;

comparing a sequence ID of the incoming data frame with a sequence ID of the previous data frame;

setting a second bit if (a) the first bit is set, (b) the source ID of the incoming data frame is the same as the source ID of the previous data frame, and (c) the sequence ID of the incoming data frame is the same as the sequence ID of the previous data frame;

comparing a sequence count of the incoming data frame with a sequence count of the previous data frame; and

setting a third bit if the first and second bits are set and the sequence count of the incoming data frame is greater by 1 than the sequence count of the previous data frame.

[c24]   The method of claim 23, wherein the incoming data frame is received immediately after the previous data frame.

[c25]   A logic circuit for pre-processing an incoming data frame, comprising:

first means for comparing an originator exchange ID of the incoming data frame with an originator exchange ID of a previous data frame;

second means for comparing a responder exchange ID of the incoming data frame with a responder exchange ID of the previous data frame;

third means, coupled to the first and second means, for setting a first bit if the originator exchange ID of the incoming data frame is the same as the originator exchange ID of the previous data frame and the responder exchange ID of the incoming data frame is the same as the responder exchange ID of the previous data frame;
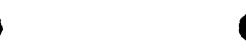
fourth means for comparing a source ID of the incoming data frame with the source ID of the previous data frame;

fifth means for comparing a sequence ID of the incoming data frame with a sequence ID of the previous data frame;

sixth means, coupled to the third, fourth and fifth means, for setting a second bit if (a) the first bit is set, (b) the source ID of the incoming data frame is the same as the source ID of the previous data frame, and (c) the sequence ID of the incoming data frame is the same as the sequence ID of the previous data frame;

seventh means for comparing a sequence count of the incoming data frame with a sequence count of the previous data frame; and

eighth means, coupled to the sixth and seventh means, for setting a third bit if the first and second bits are set and the sequence count of the incoming data frame is greater by 1 than the sequence count of the previous data frame.